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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/638,606	08/15/2000	Sean P. Burns	GIO-007-US	1629

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EXAMINER

GELLNER, JEFFREY L

ART UNIT PAPER NUMBER

3643

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/638,606

Applicant(s)

BURNS ET AL

Examiner

Jeffrey L. Gellner

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3 and 13-33 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3, 13-18, 21, 23, 25, 27, 29, 31, 33 is/are rejected.
- 7) ☒ Claim(s) 22, 24, 26, 28, 30 and 32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 13-18, 21, 23, 25, 27, 29, 31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Poole (US 5,139,588; document E on the 892 accompanying the office action that is paper no. 10) in view of Poole et al. (US 3,797,854).

As to claims 3, 18, 21, 23, 25, 27, 29, 31, and 33, Poole et al. ('588) discloses a vehicle occupant restraint system (abstract) comprising an inflatable air bag (inherent in abstract); a gas generator (col. 6 lines 39-65) for inflating the air bag; a nitrogen-containing gas generant ("tetrazole" of col. 5 lines 3-4) composition within the gas generator that forms nitrogen oxide or dioxide upon combustion (from col. 8 lines 39-50). Not disclosed is a selective non-catalytic reducing compound, that is an ammonium containing compound, placed within the gas generator in physical contact with and in heterogeneous relation to the gas generator composition. Poole et al. ('854), however, discloses a selective non-catalytic reducing compound ("ammonium carbonate" of col. 2 lines 1-4) that is placed within the gas generator in physical contact with and in heterogeneous relation to the gas generator composition (from "then passes into a chamber containing ammonium carbonate" of col. 2 lines 1-3 in that the generated gas can be considered the gas generant composition and when it, the gas, encounters the ammonium carbonate the two

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are in physical contact and in heterogeneous relation). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Poole et al. ('588) by adding a non-catalytic reducing compound as disclosed by Poole et al. ('854) so as to change the CO to CO₂ so as to reduce the amount of toxic gas in the system.

As to claims 13, 15-17, Poole ('588) as modified by Poole et al. ('854) further disclose the generant composition extruded into a desirable shape ("pellets" of examples of cols. 9 and 10 of Poole et al. ('588)), the generant producing nitrogen oxide (Poole et al. ('588) at 39-48), and the reducing compound discretely interspersed about the gas generant composition (from "chamber containing ammonium carbonate" of col. 2 lines 1-3 of Poole et al. ('545) with the reducing compound having one mole of elemental nitrogen per one mole of NO_x produced by the gas generant composition.

As to claim 14, Poole ('588) as modified by Poole et al. ('854) further disclose tetrazole, alkaline earth metal, and clay (Poole ('588) at col. 6 lines 39-65).

Allowable Subject Matter

Claims 22, 24, 26, 28, 30, and 32 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 17 October 2005 have been fully considered but they are not persuasive. Applicants' arguments are: (1) there is nothing in either Poole reference that

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discloses or suggests that the ammonium carbonate be placed proximate to, in physical contact with, and heterogeneous to the gas generant composition (Remarks page 11, middle of page); and, (2) Poole “854 teaches away from the present invention because of the text at col. 4 lines 29-38 (Remarks page 11, middle of page)..

As to argument (1), Examiner considers the gas to be the gas generant composition as the composition interacts with the ammonium carbonate. At this instance and location, the gas generant composition is physically in contact with and heterogeneous with the ammonium carbonate.

As to argument (2), the Poole ‘854 reference is used for its disclosure found in US 3,558,785 (an apparent typographical error because this patent appears not deal with gas generation compositions). However, Poole ‘854 does, by itself, disclose use of ammonium carbonate with a gas generant composition in its background section. The Poole ‘854 invention, itself, is not germane to the instant invention or the instant rejection.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey L. Gellner
Primary Examiner
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